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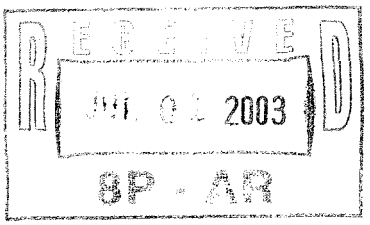

Richard Long, Director
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U.S. EPA - Region VIII
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Re: Dispersion Modeling Analysis of PSD Class I Increment Consumption in North Dakota and Eastern Montana (May 2003 version).

Dear Mr. Long:

The North Dakota Department of Health (Department) is providing separate technical comments to the draft report titled "Dispersion Modeling Analysis of PSD Class I Increment Consumption in North Dakota and Eastern Montana" (May 2003 version). These additional comments address legal issues relating to EPA's modeling and analysis. The purpose of these comments is to raise the principle legal objections North Dakota has to the Dispersion Modeling Analysis in the hopes of spurring further discussion and re-consideration of the positions EPA Region 8 appears to be taking in proceeding with its own independent process, rather than following the process and procedures laid out in the Clean Air Act and EPA's own rules and interpretive documents. The purpose of this letter is to raise the objections, not to argue or brief them in detail. If further written or oral discussions of these issues would be useful, both the state and the Department are willing to address them.

1. EPA Process Outside of Periodic Review Conducted Under 40 C.F.R. § 51.166(a)(4). 40 C.F.R. § 51.166(a)(4) requires states to review the adequacy of a state implementation plan to prevent significant deterioration of air quality "on a periodic basis and within 60 days of such time as information becomes available that an applicable increment is being violated." The Department is conducting a review under 40 C.F.R. § 51.166(a)(4) to determine the adequacy of the state's implementation plan to prevent significant deterioration and to determine whether the PSD increments are being violated. This is the first such proceeding conducted by any of the 50 states since the PSD program was initiated under the Clean Air Act more than 25 years ago. Rather than fully participating in the Department's proceeding, EPA Region 8 is initiating a parallel administrative proceeding that undercuts and second-guesses the Department's proceeding. There appears to be no basis in statute or rule for such a proceeding. The Department objects to this ad hoc

independent administrative process that undermines the primary authority delegated to states by Congress under their state implementation plans (SIPs).

2. EPA's Failure to Implement Rules to Govern Proceedings Under 40 C.F.R. § 51.166(a)(4). Alabama Power v. Costle, 636 F.2d 323, 364 (D.C. Cir. 1979) states that EPA may require states to ensure that violations of the increments of maximum allowable concentrations do not occur outside of New Source Review (NSR), but "EPA has furnished no guidelines to the states in this regard; there is no requirement that specified corrective measures be employed." More than 22 years after Alabama Power was decided, EPA has still not adopted or implemented any rules to govern such proceedings. EPA may not require that "specified corrective measures be employed" in a SIP without binding rules to cover such proceedings.

When Alabama Power, 636 F.2d at 362, determined that "enforcement measures beyond preconstruction review" were contemplated under the PSD program, it noted that:

> "EPA assured the court that any such measures ['the relatively severe correctives of a rollback in operations or the application of retrofit air pollution control technology"] would be employed in a reasonable fashion on the basis of a rule of general applicability, or by some reasonable attribution of responsibility for the violation. Any regulations promulgated will be reviewed with such considerations in mind."

Id. at 363. After almost 23 years, EPA still has not promulgated any rules or regulations to govern PSD programs outside of preconstruction review.

3. EPA's Failure to Use the Normal Source Operation Emission Inventory Determined by Department as Reviewing Authority. The preamble to the PSD rules that were adopted after Alabama Power – the relevant provisions of those rules have remained unchanged since that time -- describes the discretion "the reviewing authority" has in determining the "baseline concentration." The preamble states that it was changing its June 1978 policy so that it would no longer "routinely"

include "increased hours of operation" and "increased capacity utilization" in the baseline concentration under the "actual emissions policy" it was implementing. Instead, EPA adopted a "normal source operation" test that allows the "reviewing authority" to determine when such increases are included in the "baseline concentration."

> "An actual emissions policy, however, does allow air quality impacts due to production rate increases to sometimes be considered as part of the baseline concentration. If a source can demonstrate that its operation after the baseline date *is more representative of normal source operation* than its operation preceding the baseline date, *the definition of actual emissions* (i.e., 40 C.F.R. § 52.21(b)(21); N.D. Admin. Code § 33-15-15-01(1)(a)) allows *the reviewing authority* to use the more representative period to calculate the source's actual emissions contribution to the baseline concentration. EPA thus believes that sufficient flexibility exists within the definition of actual emissions to allow any reasonably anticipated increases or decreases genuinely reflecting normal source operation to be included in the baseline concentration."

45 Fed Reg. 52675, 52714 (August 7, 1980) (italics provided).

Under its EPA-approved SIP, the Department is "the reviewing authority" that makes the normal source operations determination described above. There is no provision in rule or statute for the EPA to make its own independent "normal source operation" determination. "We rule that EPA has authority under the statute to prevent or to correct a violation of the increments, but the agency is without authority to dictate to the States their policy for management of the consumption of allowable increments." Alabama Power, 636 F.2d at 361.

4. EPA's Failure to Use "Actual Emissions" as Defined by Rule in Calculating Increment Consumption. In NSR-PSD proceedings, North Dakota has historically used "allowable" emissions, rather than "actual" emissions, to determine increment consumption. In the preamble to the rules where EPA adopted its "actual emissions policy," 45 Fed Reg. at 52714, however, EPA recognized that "if increment calculations were

based on allowable emissions, EPA believes increment violations would be inappropriately predicted and proposed source construction would be delayed or halted." 45 Fed Reg. at 52718. Because of these "inappropriately predicted" increment violations when "allowable" emissions are used, the Department switched from using "allowable" to "actual" emissions in its current periodic review proceedings to determine whether the increment is being violated. The federal and state definitions of "actual emissions" are identical, 40 C.F.R. § 52.21(b)(21); N.D. Admin. Code § 33-15-15-01(1)(a), and North Dakota has adopted the WEPCO amendment to this definition.[1] The 1980 preamble to the rules describes how the definition of "actual emissions" is to be applied:

> "Under the final PSD regulations, the phrase 'actual emissions' means the rate at which an emissions unit actually emits a particular pollutant. See §§ 51.24(b)(21) and 52.21(b)(21). In general, that rate as of a particular date equals the average rate in tons per year at which the unit actually emitted the pollutant during the two year period which precedes the particular date and is representative of normal source operation. The reviewing authority may presume that any 'source-specific allowable emissions' for the unit is equivalent to the actual emissions of the unit. For any unit that has yet to begin normal operations on the date in question, its actual emissions equal its 'potential to emit' on that date."

45 Fed Reg. at 52699.

In sum, the rule gives two options with regard to "actual emissions" from a power plant: (1) to presume that any 'source-specific allowable emissions' for the unit are equivalent to the actual emissions of the unit; or (2) to determine the rate in tons per year at which the unit actually emitted the pollutant during the two year period which precedes the particular date provided it is representative of normal source operation. Historically the Department chose option 1, but switched to option 2 in these proceedings in part because, as noted, option 1 was inappropriately predicting increment violations.

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[1] See 57 Fed. Reg. 32314 (July 21, 1992).

The rule does not have a separate definition for "actual emissions" for determining short-term (i.e., 3-hour and 24-hour) sulfur dioxide increment consumption. EPA's ad hoc use of 90th percentile emission rates for short-term increment consumption is not supported anywhere in the statute or the rules.

5. EPA's Failure to Measure Increment Consumption Over the Baseline Concentration. The Court noted in Alabama Power that "the starting point for determining the baseline in a particular clean air region is the existing ambient pollution level in that area at the time of the first application for a permit by a major emitting facility" [footnotes omitted.] 636 F.2d at 374.

Congress did not define the increments for sulfur dioxide standing alone, but rather defined them as "the maximum allowable increase in concentrations ... *over the baseline concentration* ... " 42 U.S.C. § 7473(b)(1). (Italics provided.)

Congress defined "baseline concentration" as "*the ambient concentration levels* which exist at the time of the first application for a permit in an area subject to this part, based on air quality data available in the Environmental Protection Agency or a State air pollution control agency and on such monitoring data as the permit applicant is required to submit." 42 U.S.C. § 7479(4). (Italics provided.)

EPA's approach for determining air quality deterioration and PSD increment consumption does not determine the baseline concentration or the ambient concentration level for each short term increment. Instead the baseline source inventory are subtracted from the current source inventory, and the difference is modeled. The results are then compared to the Class I increments. This was the approach that EPA initially proposed in its 1978 regulations, in which no "baseline concentration" was "formally established." 43 Fed. Reg. 26380, 26400 (June 19, 1978). This approach, however, was rejected in Alabama Power. Rather, Alabama Power determined that Congress expected EPA and the states "to develop and utilize the most accurate and feasible modeling techniques available," 636 F.2d at 387, and "to use actual air quality data to establish the baseline" which is defined "in terms of existing ambient concentration levels" on the minor source baseline date. *Id.* at 372. In addition, "Congress intended that monitoring would impose a certain

discipline on the use of modeling techniques," through "the development of sophisticated monitoring techniques" by which modeling techniques would be "held to earth by a continual process of confirmation and reassessment, a process that enhances confidence in modeling, as a means for realistic projection of air quality." *Id.* at 372.

The Department has employed an alternative approach for baseline concentration and increment consumption in its proceedings that is consistent with 42 U.S.C. § 7479(4), the language of Alabama Power relating to modeling and monitoring, and the rules and manual EPA adopted immediately after Alabama Power was decided. These rules, which have been discussed in part in the previous sections, redefined how the "baseline concentration" was to be established by the state. 45 Red. Reg. at 52714-715. It also describes how "Increment Consumption" is to be determined through "Use of Actual Emissions." *Id.* at 52717-719. The manual EPA finalized at that time demonstrates in more detail how this process works. In establishing the emissions inventories, the manual provides:

> At a minimum, the data should be presented in a summary format showing highest and highest, second highest concentrations for pollutants with short-term standards and the appropriate long-term average associated with each standard. *These concentrations effectively describe the existing ambient concentrations within the impact area attributable to actual emissions from existing sources.*
>
> In many cases, monitoring data may require adjustment to compensate for new emissions permitted in the impact area but not occurring during the monitoring period. The emissions inventory used for adjusting the monitoring data should be gathered as previously described and should be used to adjust the monitoring data by proper dispersion modeling procedures.

EPA *Prevention of Significant Deterioration Workshop Manual I* at *I-C-23* (October 1980). How these short-term baseline concentrations are used to determine whether there is an increment violation is illustrated in Table C-4 of the manual, in which the short-term "total possible air quality" is the highest or maximum ambient concentration allowed after the

increment is added to the "existing air quality" or baseline concentration to determine whether the maximum allowable ambient concentration is exceeded (i.e., the short-term 3-hour or 24-hour "baseline concentration" plus the relevant 3-hour or 24-hour increment). *Id.* at I-C-34.[2]

The Department's approach follows the provisions of 42 U.S.C. § 7479(4), Alabama Power, 636 F.2d at 372, 387, and the1980 *Prevention of Significant Deterioration Workshop Manual.* It involves determining the baseline concentration for the Class I area by modeling emissions from all the sources that operated during the baseline at normal operation, adding the PSD allowable increment (i.e., 25 mg/m3 for the 3-hour and 5 mg/m3 for the 24-hour average) to the baseline concentration to establish an exceedence threshold known as the Maximum Allowable Ambient Level (MAAL)). Once the MAAL is established the current source emissions are modeled to determine the current concentration. The current concentration is then compared to the MAAL to determine if any exceedences of the threshold occur. One exceedence of the threshold is allowed. A second exceedence would constitute a violation.

EPA's modeling of increment consuming emissions only does not measure the increment consumption over the baseline concentration, and thus never measures whether the actual short term conditions are improving or declining. In sum, Region 8's approach fails to determine "the maximum allowable increase in concentrations ... *over the baseline concentration* ... " as required by 42 U.S.C. § 7473(b)(1). Instead, it merely looks at increment consumption standing alone, which, for the reasons discussed above, does not allow any determination whether short-term air quality is actually improving or declining.

6. EPA's Failure to Use Monitoring Data in Determining Whether Air Quality is Declining. Monitoring data shows that air quality in North Dakota's Class I areas has significantly improved rather than declined.

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[2] EPA's 1990 *New Source Review Manual* (draft October 1990) has never been finalized like the 1980 manual, and, further, its approach is inconsistent with both the language of *Alabama Power* cited above and the definition of "baseline concentration" at 42 U.S.C. 7479(4), which measures deterioration of air quality from "ambient concentration levels" as established in a manner described in the quoted language above from the 1980 *Prevention of Significant Deterioration Workshop Manual.*

In addition, as noted in the previous section, "Congress intended that monitoring would impose a certain discipline on the use of modeling techniques," through "the development of sophisticated monitoring techniques" by which modeling techniques would be "held to earth by a continual process of confirmation and reassessment, a process that enhances confidence in modeling, as a means for realistic projection of air quality." Alabama Power, 636 F.2d at 372.

Failure to model a full emission inventory as discussed in the previous section does not allow the comparison of modeling to monitoring intended by Congress. Such a comparison in the Department's periodic review proceeding allows the comparison Congress intended, and allows the fact-finder to judge which modeling methodology most accurately predicts actual concentrations.

7. EPA's Inclusion of Sources Granted a Variance under 42 U.S.C. § 7475(d) in Calculating Increment of the Primary Increment under 42 U.S.C. § 7473(b)(1) Rather Than the Alternative Increment under 42 U.S.C. § 7475(d). This is clearly inconsistent with the plain meaning of 42 U.S.C. § 7475(d) and its legislative history.

8. EPA's Use of North Dakota's Minor Source Baseline Date for Non-mandatory Class I Areas in Montana that Were Re-classified After Increment Consuming Sources Were Built. All existing sources should be baseline sources as of the date of the reclassification.

Thank you for the opportunity to file these comments. We look forward to working with you to resolve these issues.

Sincerely,

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Dave Glatt, Chief, EHS

BEFORE THE ENVIRONMENTAL PROTECTION AGENCY
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION VIII

In the Matter of:	)	
	)	
Dispersion Modeling Analysis of PSD Class I Increment Consumption in North Dakota and Eastern Montana (May 2003 version).	)	**AFFIDAVIT OF SERVICE BY FEDERAL EXPRESS**

STATE OF NORTH DAKOTA)
) ss.
COUNTY OF BURLEIGH)

Matthew Heimbuck states under oath as follows:

1. I swear and affirm upon penalty of perjury that the statements made in this affidavit are true and correct.

2. I am of legal age and on the 30th day of June, 2003, I served the attached **LETTER TO RICHARD LONG DATED JUNE 30, 2003, FROM LYLE WITHAM AND LETTER TO RICHARD LONG DATED JUNE 30, 2003, FROM TERRY L. O'CLAIR** upon Richard Long, by placing a true and correct copy thereof in an envelope addressed as follows:

Richard Long, Director
Air and Radiation Program (8P-AR)
U.S. EPA - Region VIII
One Denver Place
999 - 18TH Street, Suite 300
Denver, CO 80202-2466

and depositing the same in the Federal Express drop box located at the Capitol in Bismarck, North Dakota; and

_____
Matthew Heimbuck

Subscribed and sworn to before me
this _____ day of June, 2003.

_____
Notary Public